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Gilles Durand

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EXAMINER

DANIELS, ANTHONY J

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

09/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,486	Applicant(s) DURAND ET AL.	
	Examiner ANTHONY J. DANIELS	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment, filed 6/22/2009, has been entered and made of record. Claims 7-24 are pending in the application.
2. The amendments to the drawings have overcome the examiner's objection. Furthermore, Applicant's amendment to the specification has been entered into record.

Response to Arguments

1. Applicant's arguments regarding claim 7 and the Saari et al. reference have been fully considered but they are not persuasive.

Applicant argues, "...Applicants' claim 7 is allowable over Saari et al. because Saari et al. does not disclose "a reflecting member...mounted within the casing...so as to be rotatable about an optical axis of the image sensor," as required by Applicants' claim 7." It is respectfully submitted that claim 7 recites, "...a reflecting member...mounted within the casing...so as to be rotatable around *[not about]* an optical axis of the image sensor..." If Applicant maintains that Saari et al. does not disclose, "...a reflecting member...mounted within the casing...so as to be rotatable around an optical axis of the image sensor...", the examiner respectfully disagrees. In the context of the rejection, the examiner interpreted "around" to mean "in the vicinity of". It is quite clear in Figure 10 of Saari et al. that mirror "84" rotates around, or in the vicinity of, the optical axis. Therefore, the examiner submits that Saari et al. teaches all of the features of former claim 1 and claim 7 of this amendment.

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Also, Applicant states that no new matter has been added by this amendment. The examiner respectfully disagrees. An explanation of the examiner's position follows.

2. Applicant's arguments with respect to claims 15 and the Saari et al. reference have been considered but are moot in view of the new ground(s) of rejection.

In Applicant's first submission, claim 1 recited, "...said reflection means being rotatably mounted around an optical axis..." Claim 15 now recites, "...a reflecting member...rotatable about an optical axis...", "about" being different from "around" in that the examiner interpreted around as meaning, "in the vicinity of". Applicant's amendment has overcome the 102(b) rejection in view of Saari et al. However, as stated above, a new grounds of rejection is being given for this claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 7-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Claims 7 and 24 both require that the reflecting member be located between the at least one optical member and the image sensor. The examiner submits that the specification only supports a reflecting member located between only one optical member and the image sensor. Figure 3 clearly shows only one optical member “lens “5”” and the reflecting member being located between only that optical member and the image sensor. Claims 8-14 and 16-24 are rejected being dependent on claims 7 and 15, respectively. However, claim 10 has its own new matter issue. More specifically, claim 10 requires that the optical member and the image sensor are adjacent. It is quite clear that Figure 3 shows a perpendicular positioning between the two. The prior art Figures 1 and 2 do support this limitation. However, the specification discloses that the present invention is aimed to overcome disadvantages involved with these configurations. Thus, Figures 1 and 2 cannot be relied upon as unambiguous support. The examiner will claim 10 as meaning optically adjacent.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 7-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Saari et al. (US # 6,532,035).

As to claim 7, Saari et al. teaches a multidirectional image acquisition system (Figures 1-5, communication terminal “10”) comprising: an image sensor (Figure 10, image capturing

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means “72”), at least one optical member (Figure 10, lens “76”); and a reflecting member (Figure 10, flat mirror reflector “84”) configured to re-direct light incident thereon toward the image sensor (Col. 7, Lines 30-32) and mounted within the multidirectional image acquisition system (Figures 1-5), in an optical path between the at least one optical member and the image sensor (Figure 10), so as to be rotatable around an optical axis of the image sensor (Col. 7, Lines 24-26, “...arranged for pivotal movement...”).

As to claim **8**, Saari et al. teaches the system of claim 7 further comprising a casing split into a first portion that contains the optical member and the reflecting member and a second portion that contains the image sensor (Figures 1-5 and 10; *{The examiner interprets the portion of the casing the casing containing the lens and the mirror as the first portion and the portion containing the image sensor as the second portion.}*).

As to claim **9**, Saari et al. teaches the system of claim 8 wherein the casing is shaped as a cylinder and the first portion is rotatable with respect to the second portion about a central axis of the cylinder (Figures 1-5 and 10).

As to claim **10**, Saari et al. teaches the system of claim 7 wherein the optical member and the image sensor are adjacent to one another (Figure 10; *{The lens and video camera are optically adjacent.}*).

As to claim **11**, Saari et al. teaches the system of claim 7 wherein the reflecting member is one of a mirror (Figure 10, flat mirror reflector “84”) and a prism.

As to claim **12**, Saari et al. teaches the system of claim 7 further comprising a single plastic part (Figure 4; Col. 4, Lines 21-23), the optical member being a bubble formed in the

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single plastic part (Col. 4, Lines 52 and 53), and the reflecting member being a metalized oblique edge of the single plastic part (Figure 4).

As to claim **13**, Sladen et al., as modified by Saari et al. and Robb, teaches the system of claim 12 wherein the image sensor is disposed within the single plastic part (Figure 4).

As to claim **14**, Saari et al. teaches the system of claim 7 wherein the reflecting member is disposed outside of a divergence cone of the optical member (Figure 10).

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 15,16 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sladen et al. (US 2002/0061767) in view of Saari et al. (US # 6,6532,035).

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As to claim **15**, Sladen et al. teaches a communications terminal (Figure 2) comprising: a casing (Figure 2, mobile phone housing “200”); an image sensor disposed within the casing (Figure 2, video camera “202”); at least one optical member (Figure 2, lens “214”); a reflecting member disposed within the casing (Figure 2, mirror “204”) and rotatable about an optical axis of the image sensor ([0027], Lines 23-36), the reflecting member being configured to re-direct light incident thereon toward the image sensor in an optical path of the image sensor (Figure 2; [0027], Lines 23-36). The claim differs from Sladen et al. in that it further requires that the reflecting member is between the at least one optical member and the image sensor

In the same field of endeavor, Saari et al. teaches a multidirectional image acquisition system wherein a mirror is used to direct incident light toward an image sensing means. The mirror is mounted between a lens and image sensor (Figure 10). In light of the teaching of Saari et al., it would have been obvious to one of ordinary skill in the art to mount the mirror of Sladen et al. between the lens and the image sensor, because an artisan of ordinary skill in the art would recognize that this would allow a properly focused, high quality image to be obtained.

As to claim **16**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 further comprising at least one of a keypad disposed on an external surface of the casing (see Sladen et al., Figure 2, keypad “212”) and a display (see Sladen et al., display “206”) disposed on the external surface of the casing (see Sladen et al., Figure 2).

As to claim **18**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the casing is split into a first portion, which contains the optical member and the reflecting member, and a second portion, which contains the image sensor (see Sladen et al., Figure 2 and Saari et al., Figure 10; *{The examiner interprets the portion of the casing the casing*

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containing the lens and the mirror as the first portion and the portion containing the video camera sensor as the second portion.}).

As to claim **19**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 18 wherein the casing is shaped as a cylinder and the first portion is rotatable with respect to the second portion about a central axis of the cylinder (see Sladen et al., Figure 15; [0036] and [0037]).

As to claim **20**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the optical member is disposed within the casing (see Sladen et al., Figure 2), and the reflecting member, the optical member and the image sensor comprise an image acquisition system of the terminal adjacent an upper edge of the casing (see Sladen et al., Figure 4).

As to claim **21**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the optical member is disposed within the casing (see Sladen et al., Figure 2), and the reflecting member, the optical member and the image sensor comprise an image acquisition system of the terminal adjacent a side edge of the casing (see Sladen et al., Figure 4).

As to claim **22**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the image sensor and the optical member are oriented perpendicularly to one another (see Saari et al., Figure 10).

As to claim **23**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the reflecting member is disposed outside of a divergence cone of the optical member (see Saari et al., Figure 10).

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As to claim **24**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 15 wherein the reflecting member is one of a mirror (see Sladen et al., Figure 2, mirror “204”) and a prism.

2. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sladen et al. (US 2002/0061767) in view of Saari et al. (US # 6,6532,035) and further in view of Robb (US # 6,177,950).

As to claim **17**, Sladen et al., as modified by Saari et al., teaches the terminal of claim 16. The claim differs from Sladen et al., as modified by Saari et al., in that it further requires that the image sensor is connected with the display via a flexible wire.

In the same field of endeavor, Robb teaches a multidirectional imaging system wherein an image sensor is connected with a display through a flexible wire (Figure 6, camera “2” and flexible electrical circuit ribbon “118”). In light of the teaching of Robb, it would have been obvious to one of ordinary skill in the art to include the flexible wire connection between the video camera and display of Sladen et al., because an artisan of ordinary skill in the art would recognize that this would provide a robust connection not prone to damage.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. DANIELS whose telephone number is (571)272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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9/3/2009

/JOHN M. VILLECCO/

Primary Examiner, Art Unit 2622

September 7, 2009